



**RESPONSE UNDER 37 C.F.R. § 1.116
EXPEDITED PROCEDURE
GROUP ART UNIT 2193**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No.: 09/745,023
Filed: December 20, 2000
Inventor(s):
Ram Kudukoli, Robert Dye, Paul F.
Austin, Lothar Wenzel, and Jeffrey L.
Kodosky

Title: SYSTEM AND METHOD FOR
PROGRAMMATICALLY
GENERATING A GRAPHICAL
PROGRAM IN RESPONSE TO
PROGRAM INFORMATION

Examiner: Kang, Insun
Group/Art Unit: 2193
Atty. Dkt. No: 5150-44100

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to Commissioner for Patents, Alexandria, VA 22313-1450, on the date indicated below.

Jeffrey C. Hood

10/17/2005
Date

Signature

REQUEST FOR PRE-APPEAL BRIEF REVIEW

ATTN: BOX AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request. This request is being filed with a notice of appeal. The review is requested for the reason(s) stated below.

Applicant is in receipt of the Final Office Action of August 24, 2005. Claims 65 – 145 remain pending in the present case. Reconsideration of the present case is earnestly requested in light of the following remarks. Please note that for brevity, only the primary arguments directed to the independent claims are presented, and that additional arguments, e.g., directed to the subject matter of the dependent claims, will be presented if and when the case proceeds to Appeal.

Claims 65-145 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,366,300 to Ohara et al (“Ohara”). Applicant respectfully traverses the rejections.

The Ohara patent uses the phrase “automatically generating a program” (col. 16, lines 27-28), as cited by the Examiner, but the specification is very clear that Ohara involves a user using a graphical editor, specifically, “a visual programming method and system” (see, e.g., col. 1:23-18, Abstract, Title, Claim 1, etc.), where the user is required to manually specify/create a graphical layout diagram by

manually selecting graphical objects and manually specifying their behavior, in response to which Ohara's system automatically generates a program (notably *not* a graphical program) based on the *manually* specified/created graphical layout diagram.

Applicant respectfully submits that the Examiner has incorrectly equated Ohara's user specified/created graphical layout diagram with Ohara's automatically generated program, and that the two are clearly two distinct entities, particularly given that the latter is automatically generated from the former, which is manually created, as Ohara clearly describes. Applicant submits that Ohara fails to teach or suggest "the GPG program receiving information, wherein the information specifies functionality of the new graphical program, *wherein the information does not specify specific objects for the new graphical program*", and nowhere teaches or suggests "the GPG program automatically generating the new graphical program in response to said information specifying the functionality of the new graphical program, wherein the new graphical program implements the specified functionality, and wherein the new graphical program comprises a plurality of interconnected nodes that visually indicate the functionality of the new graphical program", nor "wherein said automatically generating the new graphical program is performed *without direct user input specifying the new graphical program*", as recited in claim 65.

Applicant submits that Ohara's graphical layout diagram, which the Examiner has incorrectly asserted is equivalent to Applicant's graphical program, is not an executable graphical program, but rather is a specification, where Ohara's automatically generated program (*not* a graphical program) is generated based upon this specification (the layout diagram). Nowhere does Ohara ever mention, or even hint at, automatically generating a graphical program. Rather, Ohara is directed to a user interface technique whereby the user *manually* specifies (by selecting various graphical objects) a layout diagram (similar to a rudder diagram), which in turn is used to generate the program, which is *not* a graphical program.

Additionally, regarding the limitation "the GPG program receiving information, wherein the information specifies functionality of the new graphical program, wherein the information does not specify specific objects for the new graphical program", Applicant submits that Ohara teaches that the user *manually* specifies, i.e., selects graphical objects for, Ohara's graphical layout diagram. For example, Ohara states:

"in the system adopting the visual programming method according to the present invention, the transfer means transfers a plurality of graphical objects *selected by a user from among the graphical objects displayed* by the display means for creating and displaying graphical objects each defining a behavior to the layout diagram." (col. 10:51-58) (*emphasis added*)

and

"With the visual programming method provided by the present invention, *in order to automatically generate a program of a PLC, the user* executes the steps of *selecting an output signal defining a behavior; selecting a behavior; selecting signals relevant to the behavior; setting behavioral rules; and confirming the behavior.*" (col. 16:29-32) (*emphasis added*)

Additionally, claim 1 of Ohara recites in pertinent parts:

“in the system adopting the visual programming method according to the present “a third step of connecting a first graphical object *selected by a user* from the graphical objects...to a second graphical object selected by the user from the graphical objects...” (col. 66:9-14)

“a fourth step of allowing *a user to select a graphical object or a plurality of graphical objects* from said graphical objects each used for defining a function ...”(col. 66, lines 16-18)

and so forth.

Furthermore, Applicant notes that in col. 16:26-28 Ohara explicitly excludes automatic generation of a program from the description of Ohara’s invention:

“In the following description, only matters related to the user interface characterizing the visual programming method are explained, excluding automatic generation of a program *because the automatic generation of a program is the same as the conventional system.*” (*emphasis added*)

In other words, Ohara does not consider the automatic generation of the program in Ohara’s system and method to be novel, and does not disclose how it is performed, other than to say it is performed according to prior art approaches. Additionally, as noted above, Ohara does not teach or suggest that the automatically generated program is a *graphical program* as defined in claim 65. Moreover, Applicant further notes that Ohara’s automatically generated program is for deployment to an embedded system, specifically, a programmable logic controller. Applicant respectfully submits that such devices are not normally capable of executing graphical programs as defined in the present application.

Additionally, Applicant respectfully submits that even were Ohara’s layout diagram an executable graphical program, which Applicant argues it is not, Ohara still fails to teach “wherein said automatically generating the new graphical program is performed without direct user input specifying the new graphical program”, since Ohara’s layout diagram is neither automatically generated, nor generated “without direct user input specifying the new graphical program”, but rather, is particularly specified by direct user input selecting or specifying the graphical objects.

The Examiner argues that since claim 65 does not expressly recite that the graphical program is executable, the Examiner does not consider this a limitation of the claim. Applicant respectfully submits that being executable is an inherent property of a program. For example, “program” is defined in the online technical dictionary Webopedia as “An organized list of instructions that, when executed, causes the computer to behave in a predetermined manner.” Similarly, the online computer dictionary FOLDOC defines program as “The instructions executed by a computer, as opposed to the physical device on which they run”. Moreover, Applicant notes that claim 92, dependent from claim 65, includes the method element “executing the new graphical program”, consonant with the executability of the graphical program of claim 65. Applicant submits that the Examiner has improperly attempted to redefine “program” in direct contradiction to its accepted meaning, particularly in the context of the field

of programming. Thus, Applicant respectfully submits that the graphical program of claim 65 (and the other independent claims) is inherently executable by a computer.

In direct contrast, as argued previously and at length above, Ohara discloses the user manually constructing a layout diagram by manually selecting various graphical objects for inclusion in the layout diagram (which is *not* a program, i.e., is not executable by a computer), and manually specifying the user-selected objects' behavior. Ohara's system then automatically creates a program (notably *not* a graphical program) based on the manually specified/created layout diagram. Applicant notes that nowhere does Ohara mention or even hint at a graphical program, nor automatically generating a graphical program.

The Examiner asserts that "the instant claim does not further recite what is not to be specified for the new graphical program. It merely recites, "specifying the new graphical program". Applicant respectfully disagrees, and notes that the instant claim (claim 65) specifically recites: "wherein the information specifies functionality of the new graphical program, *wherein the information does not specify specific objects for the new graphical program*", as well as "*wherein said automatically generating the new graphical program is performed without direct user input specifying the new graphical program*". Applicant respectfully submits that one of ordinary skill in the art would readily understand that Ohara's manual selection by the user of graphical objects for inclusion in the layout diagram does not read on this claim. Thus, for at least the reasons provided above, Applicant asserts that Ohara fails to teach all the features and limitations of claim 65, and so claim 65 and those claims dependent therefrom are patentably distinct and non-obvious over Ohara, and are thus allowable.

Claims 116, 118, 121, and 135 include similar limitations as claim 65, and so the above arguments apply with equal force to these claims. Thus, for at least the reasons provided above, Applicant submits that claims 116, 118, 121, and 135, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over Ohara, and are thus allowable. Claim 112, is similar to claim 65, but is directed to automatic modification of an existing graphical program instead of creation. Applicant submits that Ohara nowhere teaches or suggests a "GPG program receiving information *during program execution*, wherein the information specifies functionality to add to the existing graphical program, *wherein the information does not specify specific objects to add to the existing graphical program*", nor wherein "*said automatically modifying the existing graphical program modifies the existing graphical program without direct user input specifying the modification to the existing graphical program during said modifying*". Rather, Applicant submits that according to Ohara, any modification to the program is specified directly by the user, e.g., by manually selecting additional objects (e.g., a program element or behavioral rule) in the same way that the original layout diagram is created. For example, Ohara recites:

"In addition, according to the present invention, the step of generating a behavioral rule not set yet from already set behavioral rules further *includes a step of allowing the user to modify a*

generated behavioral rule by entering an acceptance or refusal input in response to the displayed behavioral rule. As a result, there is exhibited an effect that the user is capable of creating a program with ease. Moreover, according to the present invention, there is further included a step of *adding a modified behavioral rule* to already set behavioral rules.” (col. 63:1-12) (*emphasis added*)

“To be more specific, the user is capable of generating a program through user interfaces. In addition, the user is also capable of carrying out simulation of a generated program by carrying out the same operations as the programming. Furthermore, it is needless to say that the *user is also capable of modifying a program.*” (col. 41:16-22) (*emphasis added*)

“In addition, according to the present invention, a behavioral rule modification means *allows the user to modify a behavioral rule* displayed by the system generated rule display means by entering an acceptance or refusal input in response to the displayed behavioral rule.” (col. 64:20-24) (*emphasis added*)

In other words, the user either modifies the program directly, or simply accepts or refuses suggested behavioral rules. Nowhere does Ohara teach or suggest automatically modifying the existing graphical program without direct user input specifying the modification to the existing graphical program during said modifying. Thus, for at least the reasons provided above, Applicant submits that claim 112 and those claims dependent therefrom are patentably distinct and non-obvious over Ohara, and are thus allowable.

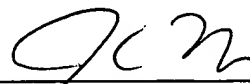
Removal of the section 102 rejection of claims 65-145 is respectfully requested.

In light of the foregoing amendments and remarks, Applicant submits the application is now in condition for allowance, and an early notice to that effect is requested. If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-44100/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Notice of Appeal

Respectfully submitted,



Jeffrey C. Hood
Reg. No. 35,198
ATTORNEY FOR APPLICANT(S)

Date: 10/17/2005 JCH/MSW